

REMARKS

Claims 1-20 remain pending in this application. Reconsideration of this application is requested.

The rejection of claims 1-3, 7, 8, and 13-19 under 35 U.S.C. § 102(e) as being anticipated by Flack et al., U.S. Patent No. 6,288,704 ("Flack"), is respectfully traversed. Flack is directed to a computer user interface that allows a user to control the navigation and display of a multidimensional object within a display space that is smaller than the object. The interface controls navigation by detecting a change in relative position of a reference target with respect to the display device. Flack fails to disclose or suggest an image capturing device having an acceleration sensor for detecting acceleration motion of the device to control motion of a graphical selection indicator as disclosed and claimed in the present application.

According to one embodiment of the invention as shown in Fig. 1, an image capturing device 100 (such as an electronic camera) is provided with an acceleration sensor 108. The acceleration sensor 108 is described in the specification at page 5 as being any type of sensor that is capable of detecting gross acceleration along an axis (from as small as 0.5 g (gravity) to about 10 g) and generating an electrical output signal in response. The acceleration sensor is preferably capable of detecting acceleration in one or more directions as shown in Figs. 2, 3 and 4. An example of an acceleration sensor is given at page 6 of the specification, wherein it is disclosed that such a sensor may be implemented as a 3-axis accelerometer airbag sensor chip available from Fuji Electric Co., Japan.

The acceleration sensor according to the present invention operates in conjunction with a processor and a display, wherein the processor receives an acceleration signal from the acceleration sensor and moves a graphical selection indicator on a display in accordance with the received acceleration signal, to enable a user to select from among a plurality of displayed icons in the display.

In contradistinction, Flack fails to disclose any use of an acceleration sensor as disclosed and claimed. Instead, the Flack device uses a video camera to acquire a navigation reference target having a unique set of features, such as a human head, face or shoulders. In operation, Flack initially acquires the reference target by capturing

a first image of the target, and then computes a relative position of the reference target with respect to the device by using one of a variety of position measurement algorithms, such as growth motion, relative motion, or stereoscopic photogrammetry. The computed relative position of the target with respect to the device is input to the viewer application, where it is used to update the display of the object in the display space.

Contrary to the claimed invention, Flack fails to disclose use of an acceleration sensor that detects acceleration motion of the device. The Flack apparatus instead computes the relative position of a navigation reference target with respect to the device, and updates the orientation of the map object in the restricted display space in accordance with the computed relative position. Clearly, the computation of relative position of a reference target with respect to the device is not capable of detecting any acceleration motion of the device, as changes in the relative position can be caused by movement of the reference target while the device remains stationary. As such, any interpretation of the video camera and "motion processor" of Flack as corresponding to the claimed acceleration sensor is outside of the broadest reasonable interpretation standard that must be used in examination of patent application claim language, and is therefore improper.

Further, Flack fails to disclose the use of a graphical selection indicator that is capable of being moved in a display to select from among a plurality of displayed icons, wherein a processor moves the graphical selection indicator in response to an acceleration signal. The mobile telephone shown in Fig. 14 contains a stationary cursor 44, which is held stationary with respect to the boundaries of the display (see col. 9, ll. 41-43). This embodiment of Flack operates the same as the map embodiment, in that changes in relative position of the navigation reference target with respect to the telephone result in navigation of the web page 48 within the display, so as to place the cursor 44 over chosen hyperlinks in the web page. There is no movement of the stationary cursor 44 within the display, much less movement of such cursor in response to an acceleration signal.

Finally, Flack does not disclose an image capturing device including at least one acceleration sensor as claimed. Flack discloses an object viewer that includes an image capturing device for tracking relative motion between a navigation reference

target and the object viewer device. It is improper to construe the image capturing device of Flack as constituting both the "image capturing device" set forth in the preamble of the pending claims as well as the "acceleration sensor." Such interpretation violates the Rule Against Double Inclusion, under which it is error to construe separately claimed elements, which are separately disclosed in the written description of an application, as corresponding to a single element in a prior art reference. See Ex parte Kristensen, 10 USPQ2d 1701 (Bd. Pat. App. & Inter. 1989) (claim which can be read as including same element twice is indefinite under 35 U.S.C. §112).

The rejection of claims 4-6, 9-12 and 20 under 35 U.S.C. § 103 as being unpatentable over Flack in view of Feinstein, U.S. Patent No. 6,466,198, also is respectfully traversed. Feinstein discloses a hand-held display device with navigation wherein an orientation sensor is responsive to changes in the spatial orientation at which the device is held by a user, such that the stored display content is scrolled within the display space. Feinstein fails to cure the basic deficiency of Flack with respect to the claimed invention, and consequently no combination of Feinstein with Flack would result in the claimed invention.

Conclusion

In view of the foregoing, claims 1-20 are submitted to be patentable over the prior art of record, whether considered individually or in combination. Withdrawal of the outstanding grounds of rejection and the issuance of a Notice of Allowance are earnestly solicited.

Please charge any fee or credit any overpayment pursuant to 37 CFR 1.16 or 1.17 to Deposit Account No. 08-2025.

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